Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Federal-State Joint Board	)	CC Docket No. 96-45
on Universal Service	)	

MOTION OF GTE TO ACCEPT LATE-FILED COMMENTS

GTE Service Corporation and its affiliated local exchange carriers (collectively "GTE"), by their attorney, respectfully request that the Commission grant this Motion to accept GTE's Comments in the above-captioned proceeding one day late. In response to the FCC's Public Notice seeking comments on the requests made by several parties for the FCC to redefine "voice grade access," GTE had prepared Comments and filed using the FCC's electronic filing system on January 19, 2000.

GTE experienced difficulties with the electronic filing due to apparent problems with the FCC's server and was informed by the Commission staff today of an error in GTE's electronic filing. GTE inadvertently attached the wrong pleading to the electronic filing, including a document from another docket instead of its Comments in this proceeding. However, GTE timely served the correct document on the state parties and the FCC by mail on January 19.

Accordingly, GTE requests that the Commission grant this Motion and accept GTE's Comments one day late. No party should be prejudiced by this request since the service copies were provided by the filing date and GTE will file the Comments electronically today.

Dated: January 20, 2000

Respectfully submitted,

GTE Service Corporation and its affiliated domestic telephone operating companies

By_____

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Their Attorney

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COMMENTS OF GTE

Dated: January 19, 2000

GTE Service Corporation and its affiliated domestic telephone operating companies

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SUMMARY

GTE urges the Commission to deny Petitioners' request to redefine voice grade access to include a frequency range of 300-3,500 Hz. The FCC should maintain its previous finding that, in context of universal service, imposing a higher voice grade transmission standard is not necessary. Increasing the voice grade transmission standard would significantly alter the eligibility for telecommunications providers seeking federal universal service support.

The cost and magnitude of the network changes required to adjust to a higher standard would not improve voice grade service and would offer only limited benefits for improving data transmissions. Instead, GTE urges that the Commission concentrate its universal service policies on providing support for the existing voice network and allowing new technologies and the competitive market to develop improved data alternatives.

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COMMENTS OF GTE

GTE Service Corporation and its affiliated domestic telephone operating companies[1] ("GTE"), hereby submit Comments in response to the Public Notice ("Notice") issued by the Common Carrier Bureau ("Bureau") in the above-captioned proceeding.[2] The Notice seeks comments on the requests made by several parties for the FCC to redefine "voice grade access" as used in Section 54.101 of the Commission's rules, 47 C.F.R. §54.101.

I. BACKGROUND AND INTRODUCTION

The FCC's First Report and Order in this docket adopted the requirement that voice grade access "should occur in the frequency range between approximately 500

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[1] The GTE affiliated domestic telephone operating companies are GTE Alaska, Incorporated, GTE Arkansas Incorporated, GTE California Incorporated, GTE Florida Incorporated, GTE Hawaiian Telephone Company Incorporated, GTE Midwest Incorporated, GTE South Incorporated, GTE Southwest Incorporated, Contel of Minnesota, Inc., GTE West Coast Incorporated, and Contel of the South, Inc.

[2] In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45, DA 99-2985, released Dec. 22, 1999.

Hertz and 4,000 Hertz for a bandwidth of approximately 3,500 Hertz."[3] Realizing that it had not intended to impose a more onerous definition of voice grade access than those generally established under existing industry standards, the Commission reconsidered this requirement in its Fourth Reconsideration Order and set the bandwidth requirement to be, at a minimum, 300 Hertz (Hz) to 3,000 Hz. The FCC was particularly concerned that some carriers would not qualify for universal service support if they were unable to meet this one criteria.[4]

Petitions for Reconsideration on the Fourth Reconsideration Order were filed in February 1998 by the North Dakota Public Service Commission, South Dakota Public Utilities Commission, and the Washington Utilities and Transportation Commission ("state commissions"). The Rural Utilities Service ("RUS") also asked for reconsideration on this issue in a January 1998 ex parte meeting. The National Association of Regulated Utilities Commissioners ("NARUC") also supported this position in a resolution dated March 18, 1998. These parties (collectively referred to as the "Petitioners") request that the FCC set the upper limit of the frequency range for voice grade access at 3,500 Hz. The state commissions argue that maintaining the limit of 3,000 Hz frequency will "slow down rural areas' access to technology such as

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[3] Federal-State Joint Board on Universal Service, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 8811 (1997)("First Report and Order").

[4] Federal-State Joint Board on Universal Service, Access Charge Reform, Price Cap Performance Review for Local Exchange Carriers, Transport Rate Structure and Pricing, End User Common Line Charge, Fourth Order on Reconsideration, CC Docket No. 96-45, Report and Order, CC Docket Nos. 96-45, 96-262, 94-1, 91-213, 95-72, 13 Rcd 5318, 5328-29 (1997) ("Fourth Reconsideration Order").

the internet."[5] The RUS goes further stating that a 3,000 Hz frequency is unable to guarantee data transmission at a rate of 28.8 kilobits per second ("kbps").[6] Thus, in the context of this ongoing Universal Service proceeding defining the service requirements for telecommunications providers seeking eligibility to receive federal universal service support, Petitioners are asking the Commission to increase the voice grade transmission standard believing that customers then may be able to achieve higher data transmission speeds.

The long-standing transmission standard of 300-3,000 Hz used to provide voice grade service has served as the foundation upon which telecommunications companies have provided quality basic service. None of the Petitioners has suggested that the increase to 3,500 Hz is needed to improve the quality of voice services. Rather, Petitioners believe that the change will improve data transmission. As discussed below, increasing the standard to 3,500 Hz would do nothing to improve existing voice grade service or improve universal service. Nor would the change guarantee a 28.8 kbps transmission speed. Increasing the voice grade transmission standard, however, would require significant upgrades and modifications to the existing network, at substantial cost. It would also significantly affect defining the eligibility for telecommunications providers seeking federal universal service support. In evaluating Petitioners' request, the Commission must balance the cost of upgrading to 3,500 Hz with the benefits to be attained in universal service in the voice network.

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[5] *See, e.g.*, South Dakota PUC Petition at 2.

II. DISCUSSION

A. Current Standards Provide Quality Voice Grade Service.

Today's telecommunication network is the product of years of development. The current standard for voice grade service has produced one of the highest quality voice networks in the world, at a very affordable cost. A host of manufacturers have optimized their products to provide quality voice transmission. Local exchange carriers have developed practices and procedures to implement these optimized products to maximum effectiveness. The Petitioners argue that the 300-3,000 Hz transmission standard, in place since the 1950's, should be considered an outdated standard. While long-standing, it is a standard based on sound principles that has served to optimize the voice network for cost, quality and value. Changing the standard to 300-3,500 Hz will do nothing to improve the voice quality of basic service for the American consumer.

B. Modifying the Upper Limit of the Transmission Standard for Voice Grade Service to 3,500 Hz Would be Prohibitively Expensive.

Since the 1950's, switching technology has evolved to the current generation of digital platforms. Most telephone companies have completed switch modernization at a cost of several billion dollars. These switches have been designed to support the 300-3,000 Hz standard. Most line cards will support frequencies up to 3,400 Hz, but few support 3,500 Hz. This margin assures performance within the defined standard of 300-3,000 Hz. Changing the standard to 3,500 Hz would force the redesign and replacement of most of the line cards in the entire digital switching fabric of GTE. At

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[6] Report of Ex Parte Presentation of the Rural Utilities Service to members of the FCC staff on January 27, 1998 ("RUS Ex Parte") at 4.

current prices, this replacement cost would be over $2B for GTE. GTE believes that other local exchange carriers would require similar upgrades at comparable cost.

Similarly, the local loop plant has been placed or replaced in conformance with the 300-3,000 Hz standard. The loop treatment equipment in the central office, *e.g.*, loop extenders and voice frequency repeaters, were designed to this standard. More significantly, the cable plant loading schemes used in GTE are all based on this same standard. One estimate of the degree of loading on loops nationwide is 20%.[7] Typical load coils used in GTE have a practical limitation of near 3,300 Hz. To accommodate a 3,500 Hz standard, all loaded plant would have to be identified and tested, and the loading schemes would have to be adjusted. In addition, loops that are loaded and exceed 18,000 feet would have to be redesigned for service through a remote switch unit or digital loop carrier ("DLC"). Remaining analog subscriber carrier would have to be removed and replaced with either new cable or a new DLC. The proposal would also necessitate other modifications including right-of-way, site acquisition and preparation, power upgrades and cable rearrangements.

In addition, if the purpose of increasing the upper range of the transmission standard to 3,500 Hz is to support a 28.8 kbps modem speed, as suggested by the Petitioners, other network changes would also have to be implemented, as discussed in Section D *infra*. A large number of existing DLCs in the network that are not capable of

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[7] *Emerging High Speed XDSL Services: Architectures, Issues, Insights, and Implications*, IEEE Communications Magazine, November 1999, notes the 20% loop loading and cites the source as *The LAST Bell System Subscriber Loop Survey*, R. Singh, Telephony, October 5, 1987.

supporting the 28.8 kbps modem speed would have to be replaced. A study, conducted for GTE's Washington state exchanges, showed that implementing a 28.8 kbps modem speed requirement would cost approximately $216 million,[8] a cost per line for GTE customers of almost $20 per month. A modem speed study conducted in Wisconsin showed an industry statewide cost estimate of $654 million,[9] an approximate cost per line per month of $16. GTE estimates that its total nationwide cost to implement this redesign would exceed $2.5B.

C. Modifying the Upper Limit of the Transmission Standard for Voice Grade Service to 3,500 Hz Would Overwhelm Existing Resources.

While cost is a major concern, other significant time and resources required to implement the changes described above also must be considered. The RUS asserts that digital switches have an economic life of about 12 years, and the economic life of copper cable is over 20 years.[10] Contrary to RUS' opinion, however, a recent FCC decision set the economic life of digital switches at a range of 12 to 18 years.[11] Only

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8 Washington Utilities and Transportation Commission Workshop on the Technical Issues related to a Minimum Network Transmission Speed Standard, January 14, 1999.

9 Presentation of the Wisconsin State Telephone Association to the Wisconsin Universal Service Fund Council, April 30, 1998.

10 RUS Ex Parte at 3.

11 1998 Biennial Regulatory Review – Review of Depreciation Requirements For Incumbent Local Exchange Carriers, United States Telephone Association's Petition for Forbearance From Depreciation Regulation of Price Cap Local Exchange Carriers, Report and Order in CC Docket No. 98-137, Memorandum Opinion and Order in ASD 98-91, released, Dec. 30, 1999 at ¶13.

recently have the majority of access lines been served by digital switches.[12] GTE completed its aggressive switch conversion to be 100% digital in 1998. The RUS' reference to economic lives implies that existing infrastructure can be scrapped once the investment is fully depreciated. That assumption is very short-sighted and unrealistic.

RUS suggests that eligible telecommunications carriers ("ETCs") could phase-in the frequency upgrade to 3,500 HZ in the same way that the FCC permitted ETCs to phase-in the capability of providing single-party service.[13] There is a significant difference between providing 100% single-party service and upgrading to increase the frequency range for voice grade access to 3,500 Hz. The single-party upgrade required the addition of more loops and switching capacity while adhering to the 300-3,000 Hz transmission standard for voice grade service. Raising the transmission standard to 3,500 Hz for voice grade service to enable data transmissions would require the significant replacement of network infrastructure described above, while doing nothing to enhance the provision of voice grade service. Replacing line cards and rebuilding the local loop facilities for a 3,500 Hz modernization requirement would entail at least a 12-15 year program. A plan of this timeframe would be sufficiently aggressive to overwhelm existing telecommunications industry employee and contractor resources nationwide.

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[12] *See* FCC Report on Infrastructure of the Local Operating Companies, July 1999, Table 1.1. The number of access lines served by digital switches has grown from 53% in 1991 to 89% in 1998.

[13] RUS Ex Parte at 4-5. *See also*, First Report and Order at 8826.

D. Increasing The Bandwidth Requirement to 3,500 Hz Will Not Guarantee a Data Modem Speed of 28.8 Kbps Because There are Other Factors That Affect Modem Performance in Both Rural And Non-Rural Areas.

As stated above, the RUS is advocating an increase to 3,500 Hz to improve data transmissions. This proposed increase, however, will not necessarily accomplish the expected result. Although GTE's wireline network is designed to provide voice grade service in the frequency range of 300-3,000 Hz, in conformance with industry standards, GTE is not able to guarantee a 28.8 kbps modem speed over a voice grade line in either rural or non-rural areas. Nor would an increase to 3,500 Hz assure this.

The analog modem connect rate which can be achieved for any given call between an end user and an Internet Service Provider ("ISP") through the public switched telephone network ("PSTN") depends upon a complex interaction of the following elements of the connection:

1. The technical capability of the end user's modem, computer configuration, and inside wiring;

2. Other equipment connected to the end user's line, such as FAX machines, cordless phones, answer machines;

3. The length and type of loop facilities connecting the end user to the serving switch;

4. The technical parameters of the overall network connection including the end user serving switch, the inter-office connection and the switch which serves the ISP;

5. The type of access facilities connecting the ISP to its serving switch; and

6. The modem used by the ISP.

1. Connection To The Network – Customer/ISP Equipment

The modem circuit begins with the end-user's computer and its configuration. The theoretical maximum data modem speed for the ideal twisted-pair line is a function of the signal strength, noise and the type of modulation employed by the modems at each end of the connection. Not all data modems are created equal. The International Telecommunications Union – Telecommunications Standardization Sector ("ITU-T")[14] has developed Standard V.34 ("V.34") for modems with rates of 28.8 kbps. Modems must accommodate several signal variables. The standard allows latitude for each manufacturer to determine how its modem responds to these variables. Therefore, there is significant variation in the operational characteristics of modems from different manufacturers such that the connect rate between any two modems cannot be guaranteed on a given call.

The operational bandwidth of data modems is greater than the designed bandwidth for voice grade services. V.34 modems, with frequencies ranging from 229 Hz to 3,674 Hz operate beyond the designed frequency range of the PSTN. The modems adjust to the characteristics encountered in this fringe range of the PSTN to optimize connect and data throughput rates. It is impossible to predict the performance of equipment that operates beyond the design limits of voice grade service. Notably, not only is this range beyond the current standard, but is beyond the proposed increase to 3,500 Hz.

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[14] Formerly The International Consultative Committee for Telegraphy and Telephony ("CCITT").

End users also affect modem performance through a number of end user controlled settings established in the computer configuration. In addition, other commonly-used equipment on an end user's line, such as fax machines, cordless phones and answering machines, can create negative combinations which may also adversely affect the modem speed.

Also, since the deregulation of inside wire, there has been some variation in wiring methods resulting in a number of examples of poor wiring practices reducing achievable modem speeds. The recent FCC decision on inside wire agrees that "poor quality inside wiring can cause cross-talk, disrupting basic telephone service and causing network harm."[15]

The modem circuit concludes at the ISP modem. The optimal situation has a digital modem connected to the ISP's serving wire center through an ISDN Primary Rate Interface ("PRI") trunk. Some ISPs, however, use line-side connections rather than a PRI trunk. A line side connection requires an analog modem, which introduces an extra analog-to-digital ("A/D") conversion. As discussed below, each A/D conversion lowers achievable modem speeds. The potential mismatch of analog modems used by the end user and the ISP also creates the potential for further connection degradation.

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[15] Review of Sections 68.104 and 68.213 of the Commission's Rules Concerning Connection of Simple Inside Wiring to the Telephone Network and Petition for Modification of Section 68.213 of the Commission's Rules filed by the Electronic Industries Association, Third Report and Order, CC Docket No.88-57, RM-5643, (released Jan. 10, 2000) at ¶16.

All of the factors described above are outside the control of the local carrier and could result in a degradation of the 28.8 kbps modem speed.

2. Connection To The Network – End User/ISP Loop and Transport Facilities

The length and type (copper or pair gain) of local loop facilities connecting the end user or the ISP to the serving switch can vary significantly from the ideal line necessary for connect speeds of 28.8 kbps. Long loops, greater than 18,000 feet, must be equipped with additional equipment such as load coils, voice frequency repeaters or loop extenders to enable the provision of voice grade service. However, this equipment could decrease the actual data speeds because the equipment has unique frequency response characteristics, some of which may limit the upper or lower frequencies used by V.34 modems.

Data speeds over loop lengths of any distance can be affected by interference such as induction from power lines, analog or digital carrier, or even other subscribers in the same cable. It is important to note that local carriers no longer control the use of all pairs in a cable sheath. The products and services introduced into the sheath by CLECs through line sharing and/or UNEs are not under the control of the ILEC and may degrade analog modem performance on adjacent or nearby pairs.

The number of A/D conversions in a particular connection also will affect the data connect speed. Telcordia Technologies ("Telcordia") tests indicate that there can only be one A/D conversion in the connection to achieve a connect rate above 28.8 kbps. Many PSTN customers are served through Universal Digital Loop Carriers ("UDLCs"). A Universal DLC requires two A/D conversions in the customer access

facility. An Integrated DLC ("IDLC") is digitally integrated into the switch. It has only one A/D conversion in the customer loop. Each A/D conversion introduces quantization noise further reducing achievable modem speeds.

Certain types of network equipment use voice enhancement and/or bandwidth efficiency technology which impairs connection at the higher modem speeds. For example, analog subscriber carrier uses compression techniques which are not compatible with higher data modem speeds. Some loop carriers and inter-office transport facilities may use a bit from the data stream for signaling (rob-bit signaling). This has a limiting effect upon data connect speed. The inherent design of certain line cards in earlier digital switches limit the data connect speed. These factors and combination of factors in the network contribute to the uncertainty of the connect speed that will be realized on any given connection.

Telcordia guideline TM-25704, "Guidelines for High Speed Analog Data Transmission in the Switched Network," attempts to characterize the PSTN and the achievable data modem speeds for a given circuit design. The table below uses the Telcordia characterization of the PSTN to show the effect of loop components upon the estimated maximum (not guaranteed) data modem speed connection for two typical connections.

Loop Component:	Ideal Connection	Less than ideal Connection
Customer Loop	9 kft non-loaded	25 kft loaded
Loop Cxr	No DLC	UDLC
Switch Type	Digital	Digital
Interoffice facility	Digital Route	Digital Route
Switch Type	Digital	Digital
Loop Cxr	No DLC	IDLC
ISP Customer loop	9 kft non-loaded	15 kft non-loaded

Maximum Data Speed	28.8 kbps	14.4 kbps

Thus, the following ideal conditions must exist to achieve a 28.8 kbps data modem connect speed:

1. All of the switches and trunking in the connection are digital.

2. The customer has a maximum of 9,000 feet of non-loaded loop to a switch or a DLC that is digitally integrated into the switch.

3. The customer has a V.34 modem and there are no other devices such as fax machines on the line.

4. The ISP connection to its serving wire center uses Primary Rate Interface ISDN.

The Petitioners claim that increasing the limit of the transmission standard to 3,500 Hz will allow rural areas the same capability as urban areas in accessing the Internet using 28.8 kbps. For the reasons given above, data speeds are affected by many factors. Even urban customers may not achieve a 28.8 kbps connection. The RUS also asserts that "a 3400 HZ circuit will not guarantee that a modem will connect at 28.8 Kbps, but 3000 Hz will practically guarantee that [it] will not."[16] While this may be correct, upgrading to 3,500 Hz will not guarantee it either. Even if GTE were to upgrade the entire network to theoretically handle frequencies up to 3,500 Hz, there would be no guarantee of achieving speeds of 28.8 kbps because, as shown above, the local carrier cannot control all aspects and components of the modem circuit.

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[16] RUS at 4.

E. The FCC's New Forward-Looking Cost Model Does Not Capture the Costs Associated With a Guaranteed Transmission of 28.8 Kbps Modem Speed.

Any model chosen by the Commission to calculate Universal Service or any other costs should be based upon real-world engineering assumptions and inputs which reflect the operating realities of the company for which costs are being developed. However, the FCC-adopted cost model,[17] which will be used to calculate high cost support, does not appear to include parameters which would guarantee a 28.8 kbps transmission speed.[18]

Specifically, the Commission's cost model allows the use of 18,000 foot loops. Generally speaking, the longer the loop, the lower the achievable modem connection rate. In fact, a USTA Technical Information Document states that "if the telephone company's local cable plant never extended beyond 12 kft from a central office, and its completely digital environment never had more than one analog to digital conversion, customer's modems could theoretically run at the maximum data line rate established for V.34 equipment. However, such conditions do not exist in the real world."[19] Thus,

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[17] Federal-State Joint Board on Universal Service, Fifth Report and Order, CC Docket Nos. 96-45, 97-160, 13 FCC Rcd 21323 (1998) ("Platform Order").

[18] GTE cannot state unequivocally that the Commission's cost model either will or will not support 28.8 kbps modems on any particular loop length since the Commission denied GTE's request to view the source documents used in the development of the model. *See* Freedom of Information Act Request – CC Docket Nos. 96-45 and 97-160, Letter from GTE to FCC Office of the Managing Director, Nov. 30, 1989.

[19] Technical Information Document, TID No. 98-006, Unites States Telephone Association, March 17,1998 at 1.

because the FCC model includes loops longer than an ideal 12,000 feet, the hypothetical network it constructs is unlikely to support 28.8 kbps for many customers, regardless of whether they are located in an urban or rural area.

Therefore, based upon this model, the calculation for high cost support would not provide the necessary funding to achieve this capability. Before the Commission considers requiring an expanded voice grade technical standard, it must be sure that the cost model it has adopted provides compensation for such an expanded capability.

F. The Cost Requirement to Upgrade the Network to Accommodate 3,500 Hz Will Significantly Outweigh Any High Cost Support Distributed Under its New Universal Service Mechanism Such That ETCs Will Forego Receiving That Support.

The Public Notice requests comment on how the requirement to increase the upper limit of the transmission standard for voice grade access would affect carrier's eligibility to receive universal service support.[20] The technical changes to the network required to support frequencies up to 3,500 Hz are described above. The requirements present incredible challenges to the ILECs in several forms. The cost of all lines, not just rural lines, will be increased. Moreover, since there is no additional revenue associated with this investment, there is a significant cost recovery issue.

Most ILECs have completed their network modernization programs and no longer have the human resources to handle the incremental workload associated with this new, revenue-neutral activity. GTE's experience in undertaking its current projects indicates that the contractor community would be unable to provide adequate resources

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[20] Public Notice at 3.

to close the gap. Furthermore, the industry is facing significant resource challenges to deliver new products and services like ADSL. Developing a program to increase bandwidth in the voice channel would dilute and delay efforts to respond to customer demand for the greater bandwidth available with new products and services. Given this scenario, without sufficient funding distributed under the new federal high-cost support mechanism, ETCs would likely choose to forego accepting high cost support rather than be held to a burdensome requirement.

G. The Commission Should Allow the Market to Develop the High Speed Services at Market Prices to Satisfy the Rural Consumer's Access to the Internet and Other Information Services.

The network continues to evolve in response to competitive pressures. Demand for bandwidth is increasing. As plant and equipment is replaced newer and more capable equipment takes its place. For instance, new DLCs all pass a minimum of 28.8 kbps. The voice network, however, has some inherent limitations for data.

The industry is pursuing multiple methods of providing greater bandwidth. ISDN, ADSL, and other technologies demonstrate market-driven responses to demand for bandwidth.[21] Most of the products and services under serious consideration use the copper access loop, either whole or in part, but none of them look for, or depend upon, an increase in the frequency allocated to the voice channel. The market has found investment in alternative means to be far more productive and cost effective. The

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[21] For example, MCI WorldCom President and CEO Bernard J Ebbers recently announced that after the MCI-Sprint merger, that company will rollout broadband services to rural areas using multipoint multichannel distribution service ("MMDS"). The broadband wireless network will be designed to support Internet service provider choice. *See* TR News, January 12, 2000.

architecture/technology that provides the bandwidth the consumer market is expecting will be independent of the existing voice channel. Modification of the voice channel parameters may buy a token increase in potential bandwidth, but at a prohibitive cost. Industry focus needs to be on the next technology or architecture that will provide the capacity needed for the future, rather then re-working the old model to wring out another few kilobits per second.

III. CONCLUSION

For the foregoing reasons, GTE urges the Commission to deny Petitioners' request to redefine voice grade access to include a frequency range of 300-3,500 Hz. Increasing the standard to 3,500 Hz would do nothing to improve existing voice grade service or improve universal service. Nor would the change guarantee a 28.8 kbps modem transmission speed. Increasing the voice grade transmission standard, however, would require significant upgrades and modifications to the existing network, at substantial cost. It would also significantly alter the eligibility for telecommunications providers seeking federal universal service support.

Accordingly, the FCC should maintain its previous finding that, in context of universal service, imposing a higher voice grade technical standard is not necessary.

Dated: January 19, 2000

Respectfully submitted,

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Certificate of Service

I, Judy R. Quinlan, hereby certify that copies of the foregoing "Motion to Accept Late-Filed Comments" have been mailed by first class United States mail, postage prepaid, on January 20, 2000 to the parties listed below:

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